

Title (en)
HOT ISOSTATIC PRESSING DEVICE

Title (de)
VORRICHTUNG ZUM HEISSISOSTATISCHEN PRESSEN

Title (fr)
DISPOSITIF DE COMPRESSION ISOSTATIQUE À CHAUD

Publication
EP 3006877 B1 20181212 (EN)

Application
EP 14803551 A 20140502

Priority
• JP 2013111957 A 20130528
• JP 2014062177 W 20140502

Abstract (en)
[origin: US2016039163A1] Provided is a hot isostatic pressing (HIP) device (1) that can efficiently cool a hot zone during HIP processing while restraining temperatures in the lower part of a high-pressure container. This HIP device (1) is provided with the following: gas-impermeable casings (3, 4) that surround an object to be processed (W); a heating unit (7) that is disposed inside these casings and forms a hot zone around the object to be processed (W); a high-pressure container (2); and a cooling unit that guides a pressure-medium gas cooled on the outside of the casings into the hot zone to cool the hot zone. The cooling unit comprises the following: a gas introduction unit that introduces the pressure-medium gas that has been cooled on the outside of the casings (3, 4) into the hot zone; and a cooling promotion unit (37) that cools the pressure medium gas by causing the pressure-medium gas that has been cooled on the outside of the casings to exchange heat with a base (11) of the high-pressure container (2).

IPC 8 full level
B22F 3/15 (2006.01); **B30B 11/00** (2006.01); **F27B 5/04** (2006.01); **F27B 5/06** (2006.01); **F27B 5/16** (2006.01); **F27B 17/00** (2006.01); **F27D 7/02** (2006.01); **F27D 7/04** (2006.01); **F27D 7/06** (2006.01); **F27D 9/00** (2006.01); **H01L 21/67** (2006.01)

CPC (source: EP US)
B22F 3/15 (2013.01 - EP US); **B28B 3/006** (2013.01 - US); **B30B 11/002** (2013.01 - EP US); **F27B 5/04** (2013.01 - EP US); **F27B 5/06** (2013.01 - EP US); **F27B 5/16** (2013.01 - EP US); **F27B 17/0025** (2013.01 - EP US); **F27D 7/02** (2013.01 - EP US); **F27D 7/04** (2013.01 - EP US); **F27D 7/06** (2013.01 - EP US); **F27D 9/00** (2013.01 - EP US); **H01L 21/67109** (2013.01 - EP US); **B22F 2003/153** (2013.01 - EP US); **B22F 2203/11** (2013.01 - EP US)

Cited by
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US 2016039163 A1 20160211; **US 9573334 B2 20170221**; CN 105229402 A 20160106; CN 105229402 B 20171024; EP 3006877 A1 20160413; EP 3006877 A4 20170118; EP 3006877 B1 20181212; ES 2703545 T3 20190311; JP 2014231934 A 20141211; JP 5894967 B2 20160330; KR 101747590 B1 20170614; KR 20160003773 A 20160111; WO 2014192506 A1 20141204

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